Syllabus - MSNE 490 rev. 2Sept'15 PJL
MATERIALS SCIENCE RESEARCH PROJECTS

DESCRIPTION: Independent investigation of a specific topic or problem in materials science. Research under the direction of a selected faculty member.

INSTRUCTOR / ADVISOR: may be any MSNE Tenured/Tenure-Track or Faculty Fellow listed at http://msne.rice.edu/all_faculty.aspx chosen by mutual agreement between an individual student and individual faculty based on shared research interests. Office and email information available through http://search.rice.edu/advanced/ or by clicking on their name at http://msne.rice.edu/all_faculty.aspx.

ADVISOR OFFICE HOURS: to be arranged individually by appointment

CREDITS/DEGREE/PREREQUISITES: 1 to 3 hours credit per semester. Not required for any MSNE degree but is an Open Elective for the BA or BS in MSNE. Open to undergraduates only. Registration requires permission of Instructor.

COURSE OBJECTIVES: These courses give students an opportunity to participate in research that is not available in other courses. Advisors, taking into account the background and interests of each student as well as their own, will determine course content. Students will investigate a scientific problem under the guidance of Advisor. The investigation may take the form of laboratory experiments, computational analysis, and/or reviews or studies of the published literature.

LEARNING OUTCOMES: Students will be able to:

- Conduct research at an intermediate level in at least one area of materials science or nanoengineering
- Effectively communicate scientific ideas in writing or when speaking

COURSE SCHEDULE: Students will work out a schedule and location to meet periodically one-on-one with Advisor. Students are also required to attend other meetings as scheduled by Advisor; and, in addition, to perform research as directed. Students must notify Advisor of any absences from required meetings.

COURSE MATERIALS: In general there are no textbooks or other special materials required. However, depending on the research methods and topic, advisors may ask students to refer to certain books or other documents relevant to the research. It may or may not be possible to borrow those from or through Fondren Library.

WRITTEN WORK REQUIRED FROM STUDENTS: A written report or oral presentation, as determined by Advisor, is required from each student at the end of each semester. There will be no tests or quizzes or final exam. Some advisors may require homework problem-solving.

GRADE POLICIES: Semester grades are based on the quality and quantity of each student's work including their final written report or presentation. If homework is required, that will also be part of the semester grade. Each advisor will provide further details regarding how the semester grade is determined, including rubrics for grading reports and presentations.

SYLLABUS CHANGE POLICY: This syllabus is subject to change with prior notice to the students.

RICE HONOR CODE: In this course students will be held to the standards of the Rice Honor Code as detailed in the handbook at http://honor.rice.edu/honor-system-handbook/ including Academic Fraud and Acknowledgement of Sources.

DISABILITY SUPPORT SERVICES: Students with a documented disability or other condition that may affect academic performance should notify Disability Support Services through adarice@rice.edu or www.dss.rice.edu regarding needed accommodations and then talk with their instructor / project advisor regarding those accommodations.